

## **AMENDMENTS TO THE CLAIMS**

The following is a complete listing of revised claims with a status identifier in parenthesis.

### **LISTING OF CLAIMS**

1. (Cancelled).

2. (Previously Presented) The method as claimed in claim 7, further comprising:

designing the technical system on the basis of the simulation.

3. (Previously Presented) The method as claimed in claim 2, wherein the design process includes at least one of an adaptation of, a change to, and a redesign of the technical system.

4. (Previously Presented) The method as claimed in claim 7, further comprising:

redetermining the influence of the set of setting parameters on the technical system by accessing the temporarily stored result.

5. – 6. (Cancelled).

7. (Currently Amended) A method for simulation of a technical system, comprising:

optimizing a set of setting parameters for a required function ~~to optimize~~  
~~a set of setting parameters~~, the required function being based on the set of  
setting parameters and a first set of setting constants, the set of setting  
constants being static during the optimizing, and the set of setting parameters  
being for design and reaction of the technical system;

determining a result as a function of the set of setting parameters and  
based on a request to an external source, the result being in the form of an  
influence of the set of setting parameters on the technical system;

temporarily storing the result; and

simulating the technical system based on the result and the setting  
constants; wherein

the influence of each of a plurality of sets of setting parameters on  
the technical system is determined by checking the external source,

the result of this check is temporarily stored, and

an additional influence is determined by extrapolation on the basis  
of the temporarily stored results.

8. (Currently Amended) A method for simulation of a technical  
system, comprising:

optimizing a set of setting parameters for a required function ~~to optimize~~  
~~a set of setting parameters~~, the required function being based on the set of  
setting parameters and a first set of setting constants, the set of setting

constants being static during the optimizing, and the set of setting parameters being for design and reaction of the technical system;

determining a result as a function of the set of setting parameters and based on a request to an external source, the result being in the form of an influence of the set of setting parameters on the technical system;

temporarily storing the result; and

simulating the technical system based on the result and the setting constants; wherein

the influence of each of a plurality of sets of setting parameters on the technical system is determined by checking the external source,

the result of this check is temporarily stored, and

an additional influence is determined on the basis of the temporarily stored results using a neural network.

9. (Currently Amended) A method for simulation of a technical system, comprising:

optimizing a set of setting parameters for a required function ~~to optimize a set of setting parameters~~, the required function being based on the set of setting parameters and a first set of setting constants, the set of setting constants being static during the optimizing, and the set of setting parameters being for design and reaction of the technical system;

determining a result as a function of the set of setting parameters and based on a request to an external source, the result being in the form of an

influence of the set of setting parameters on the technical system, the external source being an experiment;

temporarily storing the result; and

simulating the technical system based on the result and the setting constants; wherein

the influence of each of a plurality of sets of setting parameters on the technical system is determined by checking the external source,

the result of this check is temporarily stored, and

an additional influence is determined on the basis of the temporarily stored results.

10. (Previously Presented) The method as claimed in claim 7, wherein the simulation is carried out using a plurality of results, without the external source.

11. (Previously Presented) The method as claimed in claim 7, further comprising:

determining, from the simulation of the technical system, the sensitivity of sets of setting parameters to changes in the setting constants.

12. (Currently Amended) An arrangement for simulation of a technical system, comprising:

a processor unit configured to,

optimize a set of setting parameters for a required function  
~~to optimize a set of setting parameters~~, the required function being  
based on the set of setting parameters and a set of setting  
constants, the set of setting constants being static during  
optimizing, and the set of setting parameters being for design and  
reaction of the technical system,

determine a result as a function of the set of setting  
parameters and based on a request to an external source, the  
result being in the form of an influence of the set of setting  
parameters on the technical system, and

simulate the technical system based on the result and the  
setting constants; and  
a memory adapted to temporarily store the result; wherein

the influence of each of a plurality of sets of setting  
parameters on the technical system is determined by checking the  
external source,

the result of this check is temporarily stored, and  
an additional influence is determined by extrapolation on  
the basis of the temporarily stored results.

13. (Currently Amended) A computer readable medium on which executable instructions are recorded, the executable instructions causing a processor unit to execute a process of simulating a technical system, wherein a

required function depends on parameters and setting constants, the executable instructions comprising:

a first program segment configured to cause the processor unit to,  
optimize a set of setting parameters for a required function  
~~to optimize a set of setting parameters~~, the required function being  
based on the set of setting parameters and a set of setting  
constants, the set of setting constants being static during  
optimizing, and the set of setting parameters being for design and  
reaction of the technical system,

determine a result as a function of the set of setting  
parameters and based on a request to an external source, the  
result being in the form of an influence of the set of setting  
parameters on the technical system, and

simulate the technical system based on the result and of the  
setting constants; and

a second program segment, adapted to cause the processor unit to  
temporarily store the result; wherein

the influence of each of a plurality of sets of setting  
parameters on the technical system is determined by checking the  
external source,

the result of this check is temporarily stored, and  
an additional influence is determined by extrapolation on the  
basis of the temporarily stored results.

14. (Previously Presented) The method as claimed claim 2, further comprising:

redetermining the influence of the set of setting parameters on the technical system by accessing the temporarily stored result.

15. (Previously Presented) The method as claimed claim 3, further comprising:

redetermining the influence of the set of setting parameters on the technical system by accessing the temporarily stored result.

16.-19. (Canceled).

20. (Previously Presented) The method as claimed in claim 2, wherein the external source is at least one of a simulator and an experiment.

21. (Previously Presented) The method as claimed in claim 2, wherein the simulation is carried out using a plurality of results, without the external source.

22. (Previously Presented) The method as claimed in claim 2, further comprising:

determining, from the simulation of the technical system, the sensitivity of sets of setting parameters to changes in the setting constants.

23. (Previously Presented) The arrangement of claim 12, wherein the processor unit is further adapted to design the technical system on the basis of the simulation.

24. (Previously Presented) The arrangement of claim 23, wherein the design process includes at least one of an adaptation of, a change to, and a redesign of the technical system.

25. (Previously Presented) The arrangement of claim 12, wherein the processor unit is further adapted to redetermining the influence of the set of setting parameters on the technical system by accessing the temporarily stored result.

26. – 28. (Canceled).

29. (Previously Presented) The arrangement of claim 12, wherein the additional influence is determined from the results using a neural network.

30. (Previously Presented) The arrangement of claim 12, wherein the external source is at least one of a simulator and an experiment.

31. (Previously Presented) The arrangement of claim 12, wherein the simulation is carried out using a plurality of results, without the external source.

32. (Previously Presented) The arrangement of claim 12, wherein the processor unit is further adapted to determine, from the simulation of the technical system, the sensitivity of sets of setting parameters to changes in the setting constants.

33. (Canceled).

34. (Currently Amended) The computer readable medium of claim 13, further comprising a fourth program segment, adapted to cause the processor unit to design the technical system on the basis of the simulation.

35. (Previously Presented) The computer readable medium of claim 13, wherein the design process includes at least one of an adaptation of, a change to, and a redesign of the technical system.

36. (Previously Presented) The computer readable medium of claim 13, further comprising a fourth program segment, adapted to cause the processor unit to redetermine the influence of the setting parameters on the technical

system by accessing the temporarily stored result.

37. – 39. (Canceled).

40. (Previously Presented) The computer readable medium of claim 13, wherein the additional influence is determined from the results using a neural network.

41. (Previously Presented) The computer readable medium of claim 13, wherein the external source is at least one of a simulator and an experiment.

42. (Previously Presented) The computer readable medium of claim 13, wherein the simulation is carried out using a plurality of results, without the external source.

43. (Previously Presented) The computer readable medium of claim 13, wherein a fourth program segment is adapted to cause the processor unit to determine the influence of the set of setting parameters on the technical system by accessing the temporarily stored result determining, from the simulation of the technical system, the sensitivity of sets of setting parameters to changes in the setting constants.

44. (New) A method for simulation of a power station, comprising:

evaluating a required function to generate a required function result that optimizes a set of setting parameters, the evaluating including,

determining a first result as a function of the set of setting constants, the first result being in the form of a first influence of the set of setting constants on the technical system;

determining a second subsequent result as a function of the set of setting parameters and based on a request to an external source, the second result being in the form of a second influence of the set of setting parameters on the technical system, the set of setting constants being static during the evaluating, and the set of setting parameters being for design and reaction of the power station;

temporarily storing the required function result; and  
simulating the power station based on the required function result and the setting constants.

45. (New) The method as claimed in claim 44, further comprising:  
determining, from the simulation of the technical system, the sensitivity of sets of setting parameters to changes in the setting constants.